

State of Hawaii Civil Defense U.S. Department of the Interior Seismic Safety Program

Earthquake Safety Workshops Agenda

Day 1 - Nonstructural Seismic Hazards Workshop

8:30 - 8:45 Workshop Introductions

Ms. Tyna Petersen, our workshop co-coordinator and moderator, will present administrative details and will kick off the workshop. Mr. Brian Yanagi, Earthquake Program Manager of the State of Hawaii Civil Defense Division will welcome the attendees to the Workshop and summarize the Agenda. Mr. John Baals, Interior Seismic Safety Co-coordinator, will welcome Interior employees and introduce the speakers.

8:45 – 9:50 Nonstructural Hazards Identification

Tim Brown, Structural Engineer with the U.S. Bureau of Reclamation Building Seismic Safety Program, will explain some of the basics, including: What are nonstructural components? How do these components pose a seismic risk? Hazards identification from completed seismic evaluations including FEMA 178 and FEMA 310 evaluations will be presented along with FEMA 356 hazard identification issues. Reclamation's Nonstructural Hazards Quantification, or NHQ, process will also be presented.

9:50 - 10:00 Break

10:00 – 10:45 Prestandard and Commentary for the Seismic Rehabilitation of Buildings

Federal Agencies are required to adhere to the requirements of this Prestandard, known as FEMA 356. Mr. Rodney Barthel, Structural Engineer with the U.S. Bureau of Reclamation Building Seismic Safety Program, will explain the nonstructural component identification and mitigation requirements contained in FEMA 356.

10:45 - 11:30 Nonstructural Hazards Rehabilitation Guideline

All attendees will receive a complimentary electronic copy of the 2 volume Interior Seismic Safety Program Nonstructural Hazards Rehabilitation Guidelines. Tim Brown will present the purpose and use of the Guidelines along with the low-cost approach that allows O&M forces to use the guideline to rehabilitate most deficient nonstructural components.

11:30 - 12:30 Lunch

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Day 1 - Nonstructural Seismic Hazards Workshop - Continued

- 12:30 - 1:15 **Nonstructural Hazards Identification and Mitigation Program: A Case History**
Tim Brown will present a simple process to identify and quantify nonstructural hazards in a building, in the form of a Case History. A completed nonstructural hazards reduction program will be summarized, including the hazard identification, quantification, solution identification and total cost estimate from an actual building.
- 1:15 - 1:30 **Break**
- 1:30 - 3:30 **NHQ Field Application**
The nonstructural hazards identification and mitigation concepts presented during the day will be applied in this session. The attendees will be divided into 3 inspection groups. Each group will participate in an actual Nonstructural Hazards Quantification survey that will be completed on a near-by building.
- 3:30 - 4:00 **NHQ Field Application Closeout Session**
Tim Brown will discuss the observations with photographs from the NHQ Field Application. A sample nonstructural hazards quantification report will be presented. The report quantifies and locates all identified nonstructural hazards, maps their locations, identifies specific mitigation techniques and provides an overall cost estimate for the mitigation.
- 4:00 **Adjourn**